

## **BI-DIRECTIONAL LED-BASED LIGHT**

### **ABSTRACT OF THE DISCLOSURE**

At least one pair of LEDs, preferably of the super-luminescent type, are connected in parallel but with reverse polarity in series with at least one resistor and driven by a voltage source, which may deliver unrectified alternating current. An array of  $m$  series-connected LED pairs may be included in  $n$  parallel paths. The printed circuit board in which the LED pair(s) is mounted is adapted to fit into after-market fittings originally intended to receive incandescent light bulbs. In some embodiments, contacts are formed in the edges of lateral protrusions in the PCB.